## Calorimetric Investigation of Finite-Size Effect in Vicinity of Consolute Critical Point

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It is known that singularities of thermodynamic properties in finite volume near second-order phase transitions are smeared when the correlation length  $\xi_c$  is of the same order value as a characteristic size of system l. The finite size scaling (Fisher) suggests that behavior of the specific heat capacity can be incorporated in a universal scaling function of dimensionless parameter ( $\xi_c/l$ ).

To verify this assertion the heat capacity of lutidine - water mixture confined in porous glass with average pore size of about 1000 Å and in porous nickel matrix (average pore size is about 2500 Å) as well as in bulk has been measured by the high-resolution adiabatic microcalorimeter in vicinity of the consolute critical point.

Our measurements have shown that the amplitude and maximum of the specific heat capacity depend on the size of the system. The universal dependence of C(l,t) -  $C_{reg}$   $//t^{\alpha}$  on the parameter  $(\xi_c/I)$  has been found. The universal function agrees with one found from the computer simulations of 3d - Ising model (Talapov).

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